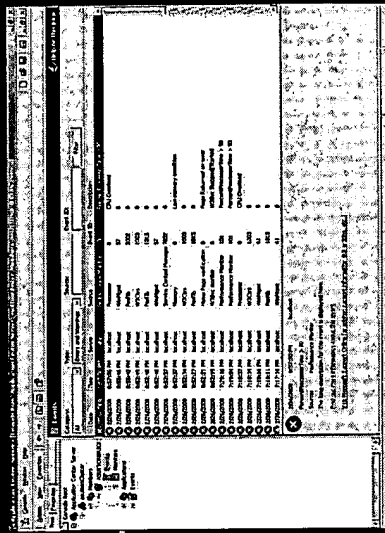
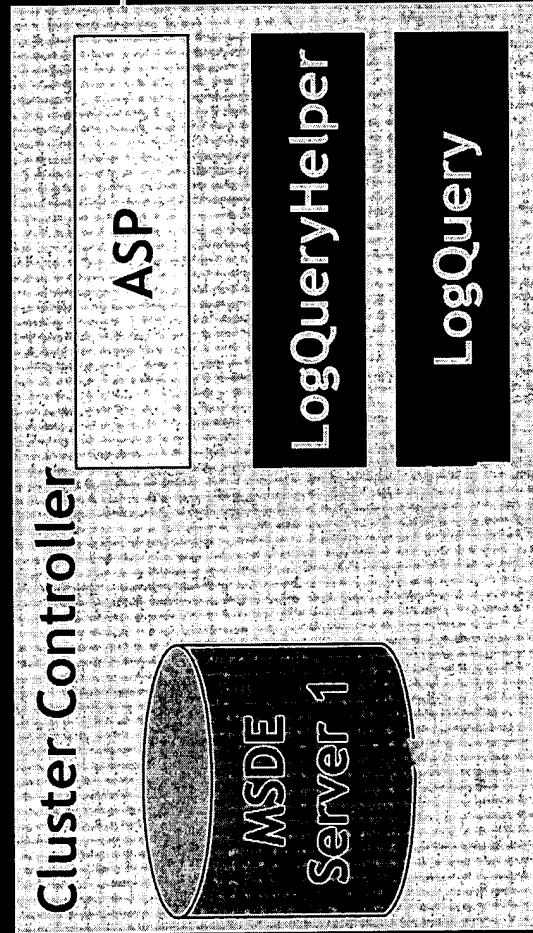


# Distributed Query Architecture



Category	Subcategory	Value	Unit
CPU	CPU0	0.00	%
	CPU1	0.00	%
	CPU2	0.00	%
	CPU3	0.00	%
Memory	Mem0	0.00	MB
	Mem1	0.00	MB
	Mem2	0.00	MB
	Mem3	0.00	MB
Disk	Disk0	0.00	MB
	Disk1	0.00	MB
	Disk2	0.00	MB
	Disk3	0.00	MB
Network	Net0	0.00	MB
	Net1	0.00	MB
	Net2	0.00	MB
	Net3	0.00	MB



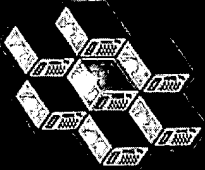
1. Parse Query
2. Run Query
3. Aggregate and Format Results
4. Return to UI

## EXHIBIT B

Application Center 2000

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Eventing  
Logging  
Monitoring

# Event Viewer

Application Center Server - [Console Root\Application Center Server\asutunbr\Cluster Members\ASUTUNBR\CLIAS\Events]

Console Window Help

Action View Favorites

Tree Favorites

Console Root

- Application Center Server
  - asutunbr
    - Cluster Members
      - ASUTUNBR\CLIAS
        - Events

Category: All

Type: Errors and Warnings

Source: Performance Monitor

Event ID: 101

Description: PercentProcessorTime > 90

Filter

Date	Time	Server	Source	Event ID	Description
2/26/2000	8:57:50 PM	localhost	Processor	0	CPU Overload
2/26/2000	8:57:50 PM	localhost	WinMgmt	37	0
2/26/2000	8:55:46 PM	localhost	PerfLib	1002	0
2/26/2000	8:55:42 PM	localhost	W3Cts	1003	0
2/26/2000	8:52:49 PM	localhost	PerfLib	1015	0
2/26/2000	8:52:48 PM	localhost	WinMgmt	37	0
2/26/2000	8:52:46 PM	localhost	Service Control Manager	7032	0
2/26/2000	8:52:37 PM	localhost	Memory	0	Low memory condition
2/26/2000	8:52:37 PM	localhost	W3Cts	1003	0
2/26/2000	8:52:27 PM	localhost	PerfLib	1015	0
2/26/2000	8:52:21 PM	localhost	Http Page Verification	0	Page Returned an error
2/26/2000	8:52:19 PM	localhost	W3Svc monitor	0	W3Svc Stopped/Started
2/26/2000	8:52:19 PM	localhost	Performance Monitor	101	PercentProcessorTime > 90
2/26/2000	7:28:16 PM	localhost	Performance Monitor	101	PercentProcessorTime > 90
2/26/2000	7:19:54 PM	localhost	Processor	0	CPU Overload
2/26/2000	7:18:37 PM	localhost	W3Cts	1003	0
2/26/2000	7:18:34 PM	localhost	WinMgmt	61	0
2/26/2000	7:18:16 PM	localhost	PerfLib	1015	0
2/26/2000	7:17:16 PM	localhost	WinMgmt	61	0

2/26/2000 8:57:50 PM localhost

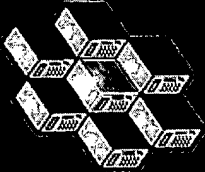
PercentProcessorTime > 90

Source: Performance Monitor

The long description for this event is displayed here.

Find out more information about this event.

Visit Microsoft Support Online for related support information (KB articles, etc.)



Eventing

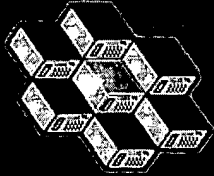
Logging

Monitoring

# Events: List View

- Sorted by Date
- Severity
- Server
- Source
- Event ID
- Description

Events						Help on this page	
Category	Type	Source	Event ID	Description	Filter		
All	Errors and Warnings	Performance Monitor	101	PercentProcessorTime > 50			
Date	Time	Server	Source	Event ID	Description		
2/26/2000	8:57:50 PM	localhost	Processor	0	CPU Overload		
2/26/2000	8:57:50 PM	localhost	WinMgmt	37	0		
2/26/2000	8:55:42 PM	localhost	PerfLib	2002	0		
2/26/2000	8:52:49 PM	localhost	W3Cts	1000	0		
2/26/2000	8:52:48 PM	localhost	PerfLib	1015	0		
2/26/2000	8:52:46 PM	localhost	WinMgmt	37	0		
2/26/2000	8:52:37 PM	localhost	Service Control Manager	7032	0		
2/26/2000	8:52:37 PM	localhost	Memory	0	Low memory condition		
2/26/2000	8:52:34 PM	localhost	W3Cts	1003	0		
2/26/2000	8:52:27 PM	localhost	PerfLib	1015	0		
2/26/2000	8:52:21 PM	localhost	Home Page verification	0	Page returned an error		
2/26/2000	8:52:19 PM	localhost	W3Svc monitor	0	W3Svc Stopped/Started		
2/26/2000	7:28:16 PM	localhost	Performance Monitor	101	PercentProcessorTime > 50		
2/26/2000	7:19:54 PM	localhost	Performance Monitor	101	PercentProcessorTime > 90		
2/26/2000	7:18:37 PM	localhost	Processor	0	CPU Overload		
2/26/2000	7:18:34 PM	localhost	W3Cts	1000	0		
2/26/2000	7:18:16 PM	localhost	WinMgmt	61	0		
2/26/2000	7:18:11 PM	localhost	PerfLib	1015	0		
2/26/2000	7:17:16 PM	localhost	WinMgmt	61	0		
2/26/2000	8:57:50 PM	localhost	Performance Monitor	101	PercentProcessorTime > 90		
						The long description for this event is displayed here	
						Find out more information about this event	
						Visit Microsoft Support Online for related support information (KB articles, etc.)	



# Events: Details

2/26/2000 8:57:50 PM

localhost

PercentProcessorTime > 90

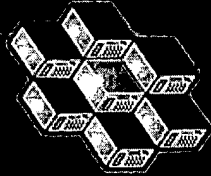
Source: Performance Monitor

The long description for this event is displayed here.

Find out more information about this event.

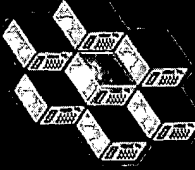
Visit Microsoft Support Online for related support information (KB articles, etc.)

- Severity, date, time, server
- Description
- Category, subcategory
- Long Message
- Links to help and support



# Cluster Event Rollup

- Rollup in LogQueryHelper
  - Events aggregated across the cluster
  - Sorted by time
- Creates virtual record set
  - Paging in the uses same query
  - Pass GUID of last record seen as bookmark
  - Page up, down, top, bottom
- Unreachable server is "soft error"
  - Available data returned with an error



Eventing    Logging    Monitoring

# Performance Viewer

In Application Center Server - [Console Root\Application Center Server\asuttonCluster]

Console Window Help

Action View Favorites

Tree Favorites

- Console Root
  - Application Center Server
    - asuttonCluster
      - Members
        - ASUTTONBRICK1AS
          - Events
          - Monitors
        - asuttonbrd2as
          - Events
          - Monitors
        - asuttonCluster
          - Applications
          - Events

Help on this page

Synchronize the cluster Refresh

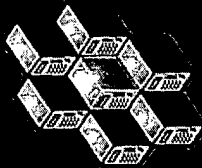
Cluster Performance

Charted Period: Fifteen Minutes

Color	Name	Min	Max	Average	Last	Scale
—	Processor Utilization	12.6938425	12.6938425	96.0221044	0	1
—	Memory Available Bytes	12193792	12193792	10796497.4	0	0

Done



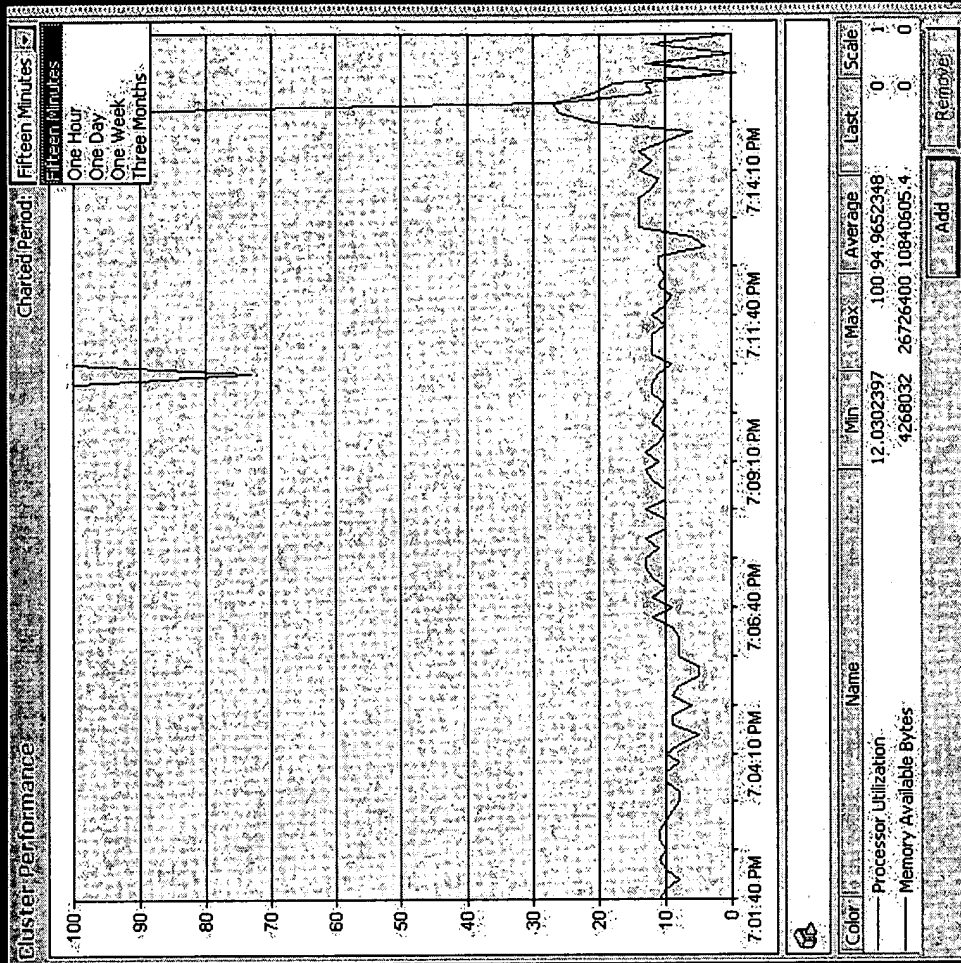


Application Center 2000

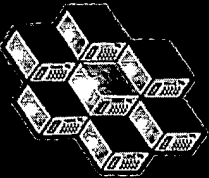


# Performance Viewer

- Add Counters
- Time periods
  - 15 minutes
  - 1 hour
  - 1 day
  - 1 week
  - 3 months
- Auto scaling
- Default counters
- Persist selection



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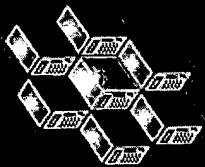
Application Center 2000



# Performance Viewer Cluster Rollup

- Aggregation method in counter configuration
  - 0 - None
  - 1 - Average of Values
  - 2 - Sum of Values
  - 3 - Last Value
  - 4 - Min Value
  - 5 - Max Value
- Cumulative counters reset to 0 each session
  - Different from perfmon
  - Growth vs. spikes
- Can't show one counter across server





Eventing

Logging

Monitoring

# Health Monitor Console

- MMC only, no web
- Monitor multiple servers
- Configuration
- Drag and Drop
- Statistics

Health Monitor - [Health Monitor\All Monitored Computers]

File Console Window Help

Action View Favorites

Tree Favorites

Health Monitor

asutonbrick1as

Actions

Non-Synchronized Monitors

Sample Monitors

Synchronized Monitors (Application Center)

Application Center Monitors

Details Statistics Graph

Name: asutonbrick1as Domain: REDMOND

Reset

Health Monitor - [Health Monitor\All Monitored Computers\asutonbrick1as\Synchronized Monitors (Application Center)\System Monitor\Memory]

Details Statistics Graph

Statistics for Memory

Property	Current	Minimum	Maximum	Average	Last Update
PercentCommitted	57	57	57	57	2/26/2000 11:57:50 PM
PagesPerSec	0	0	0	0	2/26/2000 11:57:50 PM
PagesOutput	0	0	0	0	2/26/2000 11:57:50 PM
PagesInput	0	0	0	0	2/26/2000 11:57:50 PM
PagesReads	0	0	0	0	2/26/2000 11:57:50 PM
PagesFaults	0	0	0	0	2/26/2000 11:57:50 PM
FreeSystem...	328	328	328	328	2/26/2000 11:57:50 PM
DemandZer...	181125120	181125120	181125120	181125120	2/26/2000 11:57:50 PM
CommittedB...	31659976	31659976	31659976	31659976	2/26/2000 11:57:50 PM
CommitLimit	2	2	2	2	2/26/2000 11:57:50 PM
CacheFault...	1897248	1897248	1897248	1897248	2/26/2000 11:57:50 PM
CacheBytes...	1175520	1175520	1175520	1175520	2/26/2000 11:57:50 PM
CacheBytes	1175520	1175520	1175520	1175520	2/26/2000 11:57:50 PM

Details Statistics Graph

Statistics for Memory

Property

PercentCommitted

PagesPerSec

PagesOutput

PagesInput

PagesReads

PagesFaults

FreeSystem...

DemandZer...

CommittedB...

CommitLimit

CacheFault...

CacheBytes...

CacheBytes

2 Items

Health Monitor - [Health Monitor\All Monitored Computers\asutonbrick1as\Synchronized Monitors (Application Center)\System Monitor\Memory]

Details Statistics Graph

Statistics for Memory

Property

PercentCommitted

PagesPerSec

PagesOutput

PagesInput

PagesReads

PagesFaults

FreeSystem...

DemandZer...

CommittedB...

CommitLimit

CacheFault...

CacheBytes...

CacheBytes

2 Items

Health Monitor - [Health Monitor\All Monitored Computers\asutonbrick1as\Synchronized Monitors (Application Center)\System Monitor\Memory]

Details Statistics Graph

Statistics for Memory

Property

PercentCommitted

PagesPerSec

PagesOutput

PagesInput

PagesReads

PagesFaults

FreeSystem...

DemandZer...

CommittedB...

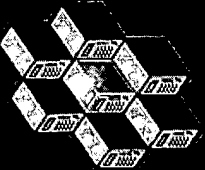
CommitLimit

CacheFault...

CacheBytes...

CacheBytes

2 Items





Application Center 2000

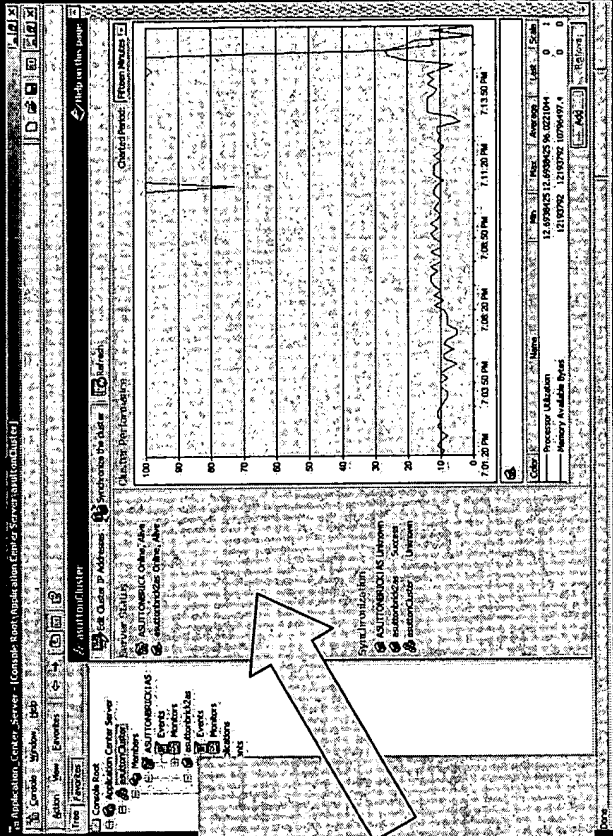
Eventing Logging Monitoring

# Server Health Rollup

- Top-level view of server health
  - System status from HealthMon
  - Not the online/offline group

## Server Status

 ASUTONBRICK Online, Alive  
 asutonbrick2as Online, Alive



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